

## **Wawona Covered Bridge Restoration**

The Wawona Covered Bridge, which spans the South Fork of the Merced River in Wawona, is a historical structure listed on the National Register of Historic Places. It is one of two covered bridges located in a National Park and is also one of only 13 in California. The original bridge was built in 1868 by Galen Clark and was later converted to a covered bridge in 1878 by the owners of the Wawona Hotel. It is located just north of the Wawona Hotel and is a significant feature at the Pioneer Yosemite History Center.

Beginning in 2002, the bridge underwent a nearly three- year restoration effort to improve the deteriorating timber superstructure. The park celebrated the restoration of the Wawona Covered Bridge on June 17<sup>th</sup>, 2004.



What was involved in the restoration process?

Preservation of the structure involved replacing the deteriorated timbers by National Park Service preservation specialists using 19<sup>th</sup> century methods to replicate the handiwork of yesterday's craftsmanship. The lost art of hewing round logs into square timbers with specialty axes was used to craft the new timbers. Mortice and tenon joints—typically used in 19<sup>th</sup> century timber framing—then joined the timbers and restored the structure.

Work also included the following preservation tasks:

- Constructing shoring to support the 115,000 lb. timber frame of the bridge
- Removing the 8" sag from superstructure, leveling the bridge
- Removing and replacing all 7 of the deteriorated 14" x 14" x 30' transverse floor beams
- Repairing the under mining of the bridge pier masonry in the riverbed
- Restoring the structural stability to upstream and downstream timber frame truss assemblies
- Replacing the undersized timber components in order to resist wind and snow loading
- Replicating hand hewed timbers using broad axes and traditional craftsmanship from 19<sup>th</sup> century practices

How can I learn more about historic preservation in Yosemite?

To learn more about Yosemite's ongoing historic preservation efforts, contact Craig Struble, park restoration specialist, at 209/379- 1220.

This project was made possible by The Yosemite Fund, a nonprofit park partner that is the primary fundraising organization for Yosemite National Park.

This and other Yosemite National Park improvement projects will be periodically updated on the park's planning web site. Visit <a href="https://www.nps.gov/yose/planning">www.nps.gov/yose/planning</a>.